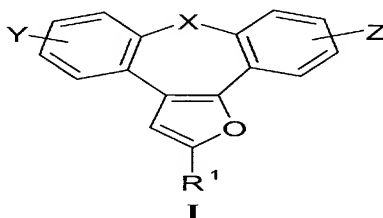


AMENDMENTS TO THE CLAIMS

1. (Currently amended) ~~Use of the compounds of the general A method of treating a disease, damage or disorder of the central nervous system associated with a disorder of neurochemical equilibrium of a biogenic amine or other neurotransmitter, comprising administering to a subject in need thereof a compound of formula I~~

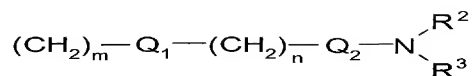


~~X means is selected from the group consisting of CH₂, or a heteroatom selected from the group consisting of O, S, S(=O), S(=O)₂ and NR^a, wherein R^a is selected from the group consisting of hydrogen, or a substituent selected from the group consisting of as C₁-C₃-alkyl, C₁-C₃-alkanoyl, C₁-C₇-alkyloxycarbonyl, C₇-C₁₀-arylalkyloxycarbonyl, C₇-C₁₀-aroyl, C₇-C₁₀-arylalkyl, C₃-C₇-alkylsilyl and C₅-C₁₀-alkylsilylalkyloxyalkyl;~~

~~Y and Z are each independently from each other mean one or more identical or different substituents linked to any available carbon atom selected from the group consisting of hydrogen, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynylalkynyl, halo-C₁-C₄-alkyl, hydroxy, C₁-C₄-alkoxy, trifluoromethoxy, C₁-C₄-alkanoyl, amino, amino-C₁-C₄-alkyl, C₁-C₄-alkylamino, N-(C₁-C₄-alkyl)amino, N,N-di(C₁-C₄-alkyl)amino, thiol, C₁-C₄-alkylthio, sulfonyl, C₁-C₄-alkylsulfonyl, sulfinyl, C₁-C₄-alkylsulfinyl, carboxy, C₁-C₄-alkoxycarbonyl, cyano and nitro;~~

~~R¹ means is CHO, C₁-C₇-alkyl optionally substituted with one, two, three or more substituents selected from the group consisting of halogen atom, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, N-(C₁-C₄) alkylamino, N,N-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl and C₁-C₄ alkylsulfinyl;~~

or a substituent of the formula II:



II

wherein

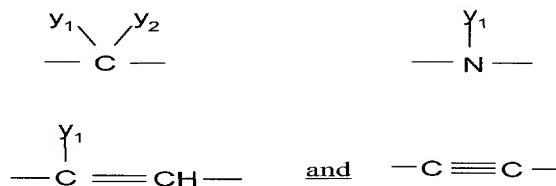
~~R² and R³ simultaneously or are each~~ independently from each other represent hydrogen, C₁-C₄-alkyl, ~~or~~ aryl having the meaning of an aromatic ring as well as fused aromatic rings containing one ring with at least 6 carbon atoms or two rings with totally 10 carbon atoms and with alternating double bonds between carbon atoms, or

~~R² and R³ taken together with [[N]] the nitrogen atom to which they are attached form a~~ have a meaning of heterocycle or heteroaryl group, wherein heterocycle relates to five member or six member fully saturated or partly unsaturated heterocycle group containing at least one hetero atom selected from the group consisting of O, S and N and where said heterocycle can be optionally substituted with one or two substituents which are selected from the group consisting of halogen, C₁-C₄ alkyl, cyano, nitro, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, *N*-(C₁-C₄) alkylamino, *N,N*-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl, and C₁-C₄ alkylsulfinyl; ~~or heteroaryl wherein heteroaryl relates to aromatic and partially aromatic groups of a monocyclic or bicyclic ring with 4 to 12 carbon atoms and at least one of them being heteroatom selected from the group consisting of O, S and N and where said heteroaryl can be optionally substituted with one or two substituents which are selected from halogen, C₁-C₄ alkyl, cyano, nitro, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, *N*-(C₁-C₄) alkylamino, *N,N*-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl, C₁-C₄ alkylsulfinyl;~~

~~m represents is~~ an integer from 1 to 3;

~~n represents is~~ an integer from 0 to 3;

~~Q₁ and Q₂ are each independently selected from the group consisting of from each other have a meaning of oxygen, sulfur or a group;~~



wherein substituents

y₁ and y₂ are each independently selected from the group consisting of ~~from each other may be~~ hydrogen, halogen, ~~an optionally substituted C₁-C₄-alkyl optionally substituted with one or more substituents selected from the group consisting of~~ halogen, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, *N*-(C₁-C₄) alkylamino, *N,N*-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl and C₁-C₄ alkylsulfinyl; ~~or aryl optionally substituted with one or two substituents selected from the group consisting of~~ halogen, C₁-C₄ alkyl, cyano, nitro, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, *N*-(C₁-C₄) alkylamino, *N,N*-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl, and C₁-C₄ alkylsulfinyl; ~~wherein an optionally substituted alkyl or aryl have the meaning as defined above;~~ hydroxy, C₁-C₄-alkoxy, C₁-C₄-alkanoyl, thiol, C₁-C₄-alkylthio, sulfonyl, C₁-C₄-alkylsulfonyl, sulfinyl, C₁-C₄-alkylsulfinyl, cyano, and nitro, or

y₁ and y₂ together with the carbon atom to which they are attached form a carbonyl group or an imino group;

~~and of their a pharmaceutically acceptable salt or solvate thereof, salts and solvates for the manufacture of pharmaceutical formulations for the treatment and prevention of diseases, damages and disorders of the central nervous system caused by disorders of neurochemical equilibrium of biogenic amines or other neurotransmitters.~~

2. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the selected biogenic amines are amine is serotonin, norepinephrine and or dopamine.

3. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the neurotransmitter is glutamate.

4. (Currently amended) ~~Use according to claims 1, 2 or 3~~ The method of claim 1 wherein the ~~compounds~~ compound of the general formula I ~~aet upon the neurochemical equilibrium by regulating~~ regulates the synthesis, ~~storage, release, metabolism, storing, releasing, metabolizing and/or reabsorption or receptor binding of a biogenic amine amines or neurotransmitter neurotransmitters and binding to their receptors.~~

5. (Currently amended) ~~Use according to~~ The method of claim 4, wherein the ~~compounds~~ compound of the general formula I ~~show binding affinity~~ binds to a receptor of ~~one or more a biogenic amines amine.~~

6. (Currently amended) ~~Use according to~~ The method of claim 5, wherein the ~~compounds~~ compound of the general formula I ~~show a significant binding affinity~~ binds to a serotonin 5-HT_{2A} and ~~or~~ 5-HT_{2C} ~~receptors~~ receptor.

7. (Currently amended) ~~Use according to~~ The method of claim 6, wherein the ~~compounds~~ compound of the general formula I ~~show binding affinity to selected~~ binds to a serotonin 5-HT_{2A} or 5-HT_{2C} ~~receptors~~ receptor with an in a concentration of IC₅₀<1µM of less than 1µM.

8. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~compounds~~ compound of the general formula I ~~aet as~~ binds to a σ 1 receptor ~~ligands in a concentration of with an IC₅₀<1µM of less than 1 µM by modulating central neurotransmitter system.~~

9. (Currently amended) ~~Use according to claims 1, 6 or 8~~ The method of claim 1, wherein the ~~compounds~~ compound of the general formula I ~~show dual binding affinity~~ binds to a σ 1 receptor and to at least one serotonin receptor selected from 5-HT_{2A} and 5-HT_{2C}.

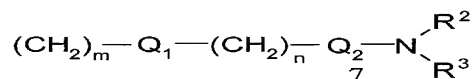
10. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~diseases and disorders~~ disease or disorder of the central nervous system ~~are~~ is selected from the group consisting of anxiety, depression ~~and modest depression~~, bipolar disorders, sleeping disorders, sexual disorders, psychosis, borderline psychosis, schizophrenia, migraine, personality disorders, ~~and~~ obsessive-compulsive disorders, social phobia, ~~or~~ panic attacks, organic mental disorders in children, aggression, memory disorders, ~~and~~ personality disorders in elderly people, addiction, obesity, bulimia and ~~similar~~ other eating disorders, snoring, ~~and~~ and premenstrual troubles.

11. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the ~~damages of~~ damage to the central nervous system ~~are~~ is caused by trauma, brain stroke, neurodegenerative diseases, cardiovascular disorders ~~such as high blood pressure~~, thrombosis, infarct ~~as well as by or~~ or gastrointestinal disorders.

12. (Currently amended) ~~Use according to~~ The method of claim 1 wherein X ~~represents~~ is O, S, or NR^a, wherein R^a ~~is selected from the group consisting of~~ is selected from the group consisting of hydrogen, ~~or substituent selected from the group consisting of~~ C₁-C₃-alkyl, C₁-C₃-alkanoyl, C₇-C₁₀-aroyl and C₇-C₁₀-arylalkyl.

13. (Currently amended) ~~Use according to claims 1 or 12~~ The method of claim 1, wherein Y and Z ~~are each~~ are each independently ~~from each other mean one or more identical or different substituents linked to any available carbon atom~~ selected from the group consisting of hydrogen, fluorine, chlorine, bromine, C₁-C₄-alkyl, halo-C₁-C₄-alkyl, hydroxy, C₁-C₄-alkoxy, trifluoromethoxy, C₁-C₄-alkanoyl, amino, amino-C₁-C₄-alkyl, N-(C₁-C₄-alkyl)amino, N,N-di(C₁-C₄-alkyl)amino, thiol, C₁-C₄-alkylthio, cyano and nitro.

14. (Currently amended) ~~Use according to claims 1, 12 or 13~~ The method of claim 1, wherein R¹ ~~has the meaning of~~ is CHO, C₁-C₇-alkyl optionally substituted with one, ~~two, three~~ or more substituents selected from the group consisting of halogen ~~atom~~, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, N-(C₁-C₄) alkylamino and N,N-di(C₁-C₄-alkyl)-amino;
or a substituent of the formula **II**:



II

wherein

~~R² and R³ simultaneously or~~ are each independently ~~from each other~~
~~represent hydrogen, C₁-C₄-alkyl, or aryl wherein aryl has the meaning as defined above; or~~
R² and R³ taken together with [[N]] the nitrogen atom to which they are
attached form a ~~have the meaning of~~ heterocycle or heteroaryl group selected from the group
consisting of morpholine-4-yl, piperidine-1-yl, pyrrolidine-1-yl, imidazole-1-yl and
piperazine-1-yl;

~~m represents~~ is an integer from 1 to 3;

~~n represents~~ is an integer from 0 to 3; and

~~Q₁ and Q₂ are each independently from each other have the meaning of~~
oxygen or CH₂ group.

15. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the
~~compounds compound of the general formula I, pharmaceutically acceptable salts and solvates~~
~~thereof are~~ is selected from the group consisting of:

2-methyl-1,8-dioxo-dibenzo[e,h]azulene;
11-mhloro-2-methyl-1,8-dioxo-dibenzo[e,h]azulene;
1,8-dioxo-dibenzo[e,h]azulene-2-carbaldehyde;
11-chloro-1,8-dioxo-dibenzo[e,h]azulene-2-carbaldehyde;
(1,8-dioxo-dibenzo[e,h]azulen-2-yl)-methanol;
(11-chloro-1,8-dioxo-dibenzo[e,h]azulen-2-yl)-methanol,
[3-(1,8-dioxo-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-dimethyl-amine;
[2-(11-chloro-1,8-dioxo-dibenzo[e,h]azulen-2-ylmethoxy)-ethyl]-dimethyl-amine;
[3-(11-chloro-1,8-dioxo-dibenzo[e,h]azulen-2-ylmethoxy)-propyl]-dimethyl-amine;

3-(11-chloro-1,8-dioxo-dibenzo[e,h]azulen-2-ylmethoxy)-propylamine; and
a pharmaceutically acceptable salt or solvate thereof.

and